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# CASES OF POTT'S DISEASE OF THE SPINE PRESENTING SOME UNUSUAL NERVOUS SYMPTOMS.

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#### CASES OF POTT'S DISEASE OF THE SPINE PRESENTING SOME UNUSUAL NERVOUS SYMPTOMS.<sup>1</sup>

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THE ordinary nervous symptoms associated with spondylitis are so common that they do not merit more than passing attention. The pain in the back, chest, or abdomen, the peculiar respiration, the reflex muscular spasm, the weakness of the lower extremities, which may be followed by paraplegia and loss of power over the sphincters, are all symptoms and complications familiar to those who have seen many cases of Pott's disease. These nervous phenomena are quite easily explained by the pathologic conditions present, e.g., the pain and muscular spasm, by irritation of the spinal nerves at their roots from pressure or inflammation, and the paraplegia by a pressure-myelitis. But occasionally symptoms arise out of the usual run that are not so easily explained.

Two such cases having come under my observation, I made a careful search of periodic literature for reports of similar ones, with the result of finding four that seemed to be remarkable and worthy of abstracting.

<sup>&</sup>lt;sup>1</sup> Read before the Orthopedic Section of the New York Academy of Medicine, November 16, 1894.



Two were reported in the Glasgow Medical Journal for 1886 by Gemmell, one occurring in his service at the Glasgow Hospital, and the other in the service of Dr. Middleton, who succeeded him. It is quite worthy of note that two such unusual and interesting cases should occur in the same hospital and within a few months of each other.

The first was in a child four years of age, who was sent to the hospital November 11, 1884, to be treated for "wry neck." On her admission a deformity of the upper dorsal vertebræ was observed. She was placed in bed and kept there, but no apparatus was applied. She remained in about the same condition as when she was admitted, and no unusual symptoms developed until June 26, 1885, seven months later, when she was seized with a violent paroxysm of dyspnea. The symptoms were so urgent that it was thought a foreign body had lodged in the larynx; but a careful examination by sight and touch failed to reveal its presence. Ether was administered and poultices applied to the neck. Gradually the distressing symptoms passed away, but the breathing never became natural, and she had subsequent attacks of dyspnea, though not so severe as the first one. At no time was there any difficulty in swallowing or paralysis of the larynx.

On July 12th the patient died, apparently from asthenia. The autopsy showed that the lungs, heart, and trachea were perfectly healthy. There was an abscess at the site of the third, fourth, and fifth dorsal vertebræ, containing considerable pus, but it did not project forward. There was no evidence of inflammation around the abscess, and the cord

showed no material change in structure.

The second case, in a child of three years, was brought to the same hospital for "bronchitis" June

30, 1885. According to the history, the child had been feeling ill since the previous March, when he began to hang his head toward the left shoulder, and at the same time the "bend in the neck was discovered."

The pulmonary symptoms had appeared six weeks before admission, and it was reported that on several

occasions he had been "choked up."

This child was also placed in bed, with no support, and nothing special was noted until early in September, when the breathing became croupy. Steaming and hot poultices were employed, with relief. On September 12th he had a more severe attack, which was again relieved by external applications; but on September 17th the dyspnea was so great that tracheotomy was performed. The child lived about one minute after the trachea was opened. In this case also there had been no difficulty in swallowing and no paralysis.

The autopsy showed a prevertebral abscess of the third, fourth, and fifth dorsal vertebræ. There was some compression of the cord, but no definite lesion.

I desire to call particular attention to the fact that both of these cases were treated without apparatus to fix the spine or support the head. The only treatment was the recumbent position, which, in a child of three or four years of age, amounts to no treatment. In the reports of these cases no attempt was made to explain the symptoms which had been present.

Faucon and Lavarand, of Lille, report a case in the *Lille Journal* for August, 1892, of a girl with disease high up in the cervical region, who had asphyctic seizures daily to the point of cyanosis. They applied a plaster jacket with a jury-mast, which relieved the symptoms at once, and the patient ultimately was cured.

A peculiar case of somewhat different character is reported by Hun in The Medical News, vol. liii, page 90. An adult, thirty-four years of age, with Pott's disease located in the second, third, and fourth dorsal vertebræ, developed paraplegia. Exaggerated tendon-reflexes and ankle-clonus were present, with no loss of sensation in the lower limbs, while in the upper extremities there were symptoms of locomotor ataxia. The anesthesia, analgesia, and inability to coördinate the muscles were well marked and progressive. Unfortunately, this patient moved away, and the subsequent history was not obtained.

The following cases came under my own observation:

P. S., twenty-eight years of age, a farmer, came to the New York Orthopedic Dispensary and Hospital, November 2, 1883. He had always been in good health up to one year before, and his family history was good, being free from all tuberculous taint. About one year previous to presenting himself he had quite a severe fall, striking upon his back. After a time he recovered sufficiently to perform his usual duties on the farm, but the back "never felt quite right." In the following June he attempted to lift a heavy hay-rack off a wagon, and strained his back severely. From that time he had more pain, so that it was difficult for him to ride or do hard work. In August he again lifted and strained the back, but not so severely as before. Within a few days he was attacked with violent pain in the back, shooting downward and forward along the course of the ureters and extending into the testicles. The pain was accompan-

ied by scanty urine, and on several occasions hematuria was present. He was confined to the bed, and his symptoms so strongly resembled renal colic that he was treated for that trouble; but a careful examination of the urine failed to reveal any deposit or calculus. Six weeks of rest in the recumbent position so relieved him that he was able to get up. Soon the pain returned, not so severely as before, but of the same character, radiating down into the testicles. The hematuria did not return. He learned to hold himself in such a position that there was as little motion of the spine as possible, but was unable to continue his work. About this time he was seen by my friend, Dr. Egbert Le Fevre, and advised to come to New York for treatment. The examination of the patient showed rigidity of the spine in the lumbar region, with slight projection of the third vertebra. A diagnosis of Pott's disease was made and a Taylor spinal support was applied. This gave immediate relief, and he was comfortable as long as the support fitted properly. When it needed adjustment the pain in the testicle would return. The peculiar nervous symptoms in this case were the unusual location of the pain, the scanty urine, and the hematuria.

After wearing the brace for three years it was removed, and he has remained well ever since, doing

the hard work on a farm.

J. F., thirty-one years of age, employed in a large machine-works, had always been in good health until February, 1890. On the 22d of that month he was assisting in the operation of lifting a heavy casting on top of a boiler. He slipped and fell, striking his back on the rounded surface of the boiler, and part of the weight of the casting fell across his pelvis. He fainted at the time, but upon recovery from that was able to be taken to his home, walking

part of the way with assistance. He remained in bed for three weeks, and was treated for severe contusions. At the end of that period he was able to get up and went to the works, but did little more than to sit in a chair and direct the men. Three months after the injury both testicles became swollen and painful without cause. The left one was the worse, and finally suppurated, discharging considerable pus. A slight discharge continued for six months, and the swelling did not disappear for a year. He wore a suspensory-bandage, but was not confined to the bed. During this period he suffered from pain in the back, and if he made a misstep, or if any one seized him by the shoulder so as to give him a twist, it would bring on pain severe enough to cause him to faint. He consulted a number of physicians, and for nearly a year before I saw him had been treated at one of the large city hospitals for lumbago. In October, 1893, he began to have attacks of dyspnea, resembling spasmodic asthma. These came on at night, and were so severe that he was deprived of sleep, and was often obliged to sit up all night. The breathing became labored, even in the daytime, and soon a marked hoarseness appeared. As a result of this loss of sleep and worry he became emaciated and was very miserable. The ordinary remedies for asthma were tried faithfully by his physician without any benefit, and he was brought to my friend, Dr. Le Fevre, for consultation. The peculiarity of the breathing, and the absence of the usual signs of asthma, directed the attention to the upper air-passages. There was no history of obstruction or paralysis in the larvnx; so he suspected a reflex cause. An examination of the back revealed a projection in the lumbar region, and the case was referred to me for treatment. The signs of lumbar Pott's disease were well marked, and I applied a Taylor support, supplemented by a strong corset. This gave him great relief, and after its application he had only one asthmatic attack. The breathing became easier, the hoarseness disappeared, and his general health improved. When I presented him to the Section in February he had gained thirty pounds, and was doing his ordinary work.

Though cautioned to be very careful about lifting, and advised to be regular in attendance, to keep the brace properly adjusted, he felt so much better that he became careless. He frequently lifted heavy weights, indulged somewhat in dissipation, in consequence of which he received a severe fall, and became irregular in his attendance. The result was that he came to see me in April with the report that he was nearly as bad as before. There was a slight increase in the kyphosis. After adjusting the brace I sent him into the country, where he could rest, and the result was that in a few weeks he was much better. I saw him during the latter part of the summer, when he was at work again. He promised to do no lifting and to be careful of his habits, and, as I have not heard from him since, assume he must be in fair condition.

That his asthmatic seizures, dyspnea, and hoarseness were dependent upon the spinal lesion seems evident from the fact that they were not like true asthma, that they improved at once under efficient support to the spine, returned again when the back was neglected, and again disappeared under rest and support.

The explanation of these cases is, of course, largely theoretic. We have a definite and well-known pathologic lesion, but with it symptoms out of the usual run which cannot be explained as a direct

consequence of the lesion. The epigastric pain, the paraplegia, and other nervous symptoms have their explanation in the lesion. My own belief is that we must look to the sympathetic system, and regard them as reflex phenomena. Tust why a certain number of cases, the disease being located in different regions, should be affected in this way, it is impossible to say. But it is no more strange than that a certain number of pregnant women should suffer from uncontrollable vomiting, while others pass through the whole period with no disturbance of the digestive organs. In certain people a slight attack of indigestion will bring on a severe attack of asthma, and some women are warned that conception has taken place by a peculiar hoarseness which comes on much earlier than the usual signs of pregnancy.

In those cases in which an autopsy was made there appeared to be no change in the cord. It is probable, therefore, that the source of irritation was at the roots of the spinal nerves.

Although the explanation of the symptoms occurring in the cases I have described may be theoretic, there are two practical points that may be learned from them. The first is that it is possible to have peculiar symptoms dependent upon a lesion of the spinal column, and the true nature of the trouble can easily be overlooked. The second is the importance of an early and efficient support to the spine as soon as the diagnosis is made.

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